Clinical Vignette

Mycobacterial Kidney Infection in a Patient with Renal Transplantation

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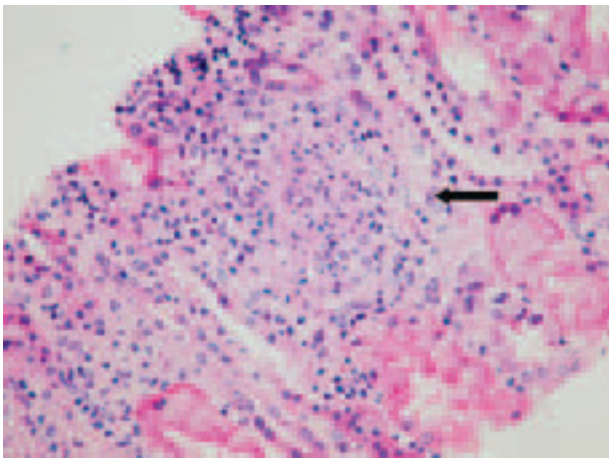
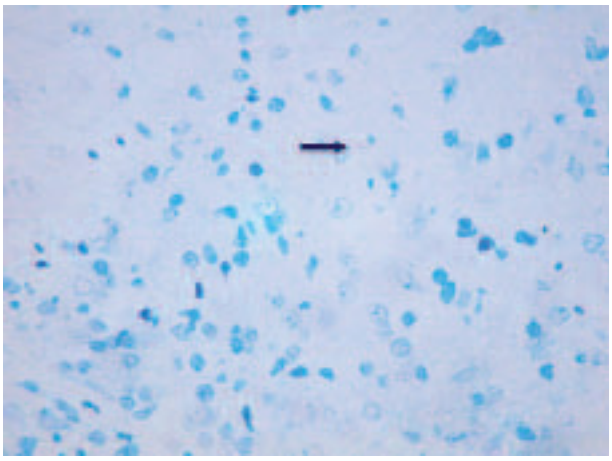
A 39-year-old gentleman with end stage renal failure due to chronic glomerulonephritis was started on continuous ambulatory peritoneal dialysis (CAPD). He received cadaveric renal transplant 4 months after initiation of dialysis. The creatinine level remained stable. Four months after transplantation, he presented with fever and deteriorating renal function. Bacterial and acid-fast bacilli cultures from urine samples were negative. Chest radiograph was normal. Renal biopsy was performed and showed granulomatous inflammation in the interstitium (Panel A); Ziehl-Neelsen stain revealed acid-fast bacilli (Panel B). Anti-tuberculous chemotherapy was started for renal tuberculosis. However, renal function continued to deteriorate and the patient resumed CAPD 14 months' post-transplantation. Graft nephrectomy was done at 16 months.



Panel A



Panel B

Tuberculosis is an opportunistic infection affecting 0.35% to 15% of transplant recipients worldwide [1]. Reactivation of dormant tuberculosis is the most frequent mode of infection but, rarely, it can also be transmitted by donor kidney or from an exogenous source [2]. Our patient had no past or contact history of tuberculosis. Diagnosing allograft tuberculosis remains difficult in transplant recipients and requires a high index of suspicion. Renal biopsy is often necessary to establish the diagnosis.

References

1. Singh N, Paterson DL. Mycobacterium tuberculosis infection in solid-organ transplant recipients: impact and implications for management. *Clin Infect Dis* 1998;27:1266–77.
2. Koselj M, Kandus A, Ales A, Bren AF. Mycobacterial infection in renal transplant recipients. *Transplant Proc* 2000;32:152–4.